REMARKS

STATUS OF THE CLAIMS

This Request for Reconsideration ("Request") is in response to the Office action dated August 9, 2005. Claims 36-39 and 118-138 are currently pending in this application.

CLAIM REJECTIONS

In the October 9, 2005 Office Action, claims 36-39 stand rejected under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the enablement requirement.

The Claims are Enabled

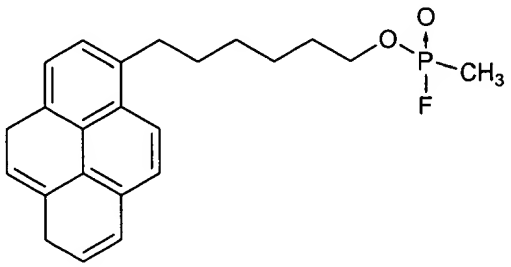
Claims 36-39 and 118-138 stand rejected under U.S.C. § 112, first paragraph as allegedly failing to comply with the enablement requirement. Specifically, the Office action contends that the specification "fails to describe methods which would be useful to effect the formation of the covalent bond between the capture polypeptide and the reactant ligand."

Applicants respectfully traverse this rejection as the specification enables one skilled in the art to make and use the claimed invention. Pairs of capture polypeptide/reactant ligand pairs are presented in Table A as noted in the Office action. Also listed in Table A is a reference for each capture polypeptide/reactant ligand pair. These references enable one skilled in the art to form a covalent bond between a capture polypeptide/reactant ligand pair.

In one entry of Table A, the acetylcholinesterase/pyrenebutyl methylphosphonofluoridate pair cites (Berman and Taylor, 1978), the complete citation which is recited at page 79, second paragraph, a copy of which is enclosed with this Request.

Berman and Taylor disclose at page 1704, column 2 that the "serine within the active center of AChE [acetylcholinesterase] is capable of nucleophilic attack upon esters of carbon, sulfur, phosphorus, and boron."

The structure of the reactant ligand pyrenebutyl methylphosphonofluoridate is disclosed in Berman and Taylor at page 1706, column 2, last structure, and drawn below:



Pyrenebutyl methylphosphonofluoridate is an ester of phosphorus. As such a covalent bond is formed between the serine oxygen of acetylcholinesterase and the phosphorus of pyrenebutyl methylphosphonofluoridate.

A procedure for forming the covalent bond is disclosed in Berman and Taylor at page 1705, column, last paragraph. Specifically, purified AChE in 10 mM Tris-Cl buffer at pH 8.0 containing 0.1 M NaCl and 0.04 M $MgCl_2$ is allowed to react with a 1.5 - 3-fold molar excess of PBMPF. The paragraph continues with a description of how to purify the resulting covalently linked pair.

In another entry in Table A, the cysteine proteases/formulae (5 and 6) pair cites the reference (Scheidt et al. 1998), a copy of which is submitted herewith. Scheidt discloses at page 2478, column 1, last paragraph, several classes of irreversible cysteine protease inhibitors that form a covalent bond with the active site cysteine, including Michael acceptors and halomethyl ketones. Formula 4 of this application is an example of a Michael acceptor, and Formula 5 is an example of a halomethyl ketone. A procedure for forming the covalent bond between the capture polypeptide cysteine protease and reactant ligand formulae (5 or 6) is disclosed in Scheidt at page 2491, column 2, last paragraph to page 2492, column 1.

In another entry of Table A, the Ribonulcease A/uracil fluoroaryl phosphates pair cites the reference (Stowell et al. 1995), a copy of which is submitted herewith. Stowell discloses at page 6931, column 1, last paragraph, that Ribonulcease A (RNase A) can catalyze the formation of a ribonuclease inactivator from an appropriate phosphate ester (for example, uracil fluoroaryl phosphate, compound 4

of Stowell). In the case of uracil fluoroaryl phosphate, a quinone methide is generated which is a potent alkylating agent. This alkylating agent covalently modifies RNase A most likely at the side chains of Lys7, Arg10, Gln69, and Glu11 (page 6933, column 1, paragraph 2). A procedure for forming the covalent bond between RNase A and uracil fluoroaryl phosphate is disclosed in Stowell at page 6933, column 2, paragraph entitled "Inactivation Kinetics".

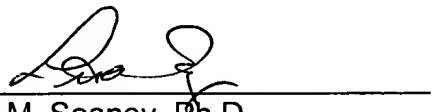
For the sake of brevity, Applicants have limited this discussion to three of the capture polypeptide/reactant ligand pairs of Table A. However, in a similar manner, using the references cited in Table A, one skilled in the art would understand how to make and use the claimed invention.

For the reasons presented herein, Applicants respectfully assert that claims 36-39 and 118-138 comply with 35 U.S.C. § 112, first paragraph and request that the rejection be withdrawn.

CONCLUSION

Applicants believe that currently pending Claims 36-39 and 118-138 are patentable. Applicants respectfully request that the Examiner grant early allowance of this application. The Examiner is invited to contact the undersigned agent for the Applicants via telephone if such communication would expedite this application.

Respectfully submitted,



Lisa M. Seaney, Ph.D.
Registration No. 56,246
Agent for Applicants

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, ILLINOIS 60610
(312) 321-4200